Eng. Lib
Farlow

THE ILLUMINATING ENGINEER

THE JOURNAL OF

GOOD LIGHTING

Official Organ of the Illuminating Engineering Society

FOUNDED IN LONDON 1908

Edited by LEON GASTER

LIGHT LAMPS FITTINGS AND ILLUMINATION

OIL. GAS ELECTRICITY ACETYLENE PETROL-AIR GAS ETC.

Vol. XX. Jan. 1927—Dec. 1927

AUTHOR'S INDEX

PAGE

A

ALLPRESS, H. S., on Problems in Illuminating Engineering 170
APPLEBEE, L. G., on Floodlighting 40

B

BARKER, H., on Experiments in the Ventilation of Small Bedrooms 357
BLOK, A., on Problems in Illuminating Engineering .. 170
Work of the Photometry Department at the National Physical Laboratory .. 201
BRAINERD, A. A., on The Importance of Shadows in Illuminating Engineering 350
BUCKELL, B. E., on Two Problems in the Colour Lighting of Show Windows 168
BUCKLEY, H., on Work of the Photometry Department at the National Physical Laboratory 173
BUSH, W. E., on Problems in Illuminating Engineering .. 169

C

CALDWELL, F. C., on Some Notes on the 1927 Report of the Street Lighting Committee of the I.E.S. (U.S.A.) .. 347
CATTEN, F., on Floodlighting 5, 39
CHRISTIE, J., on Street Lighting of Brighton 277
CRAMB, A. C., on Public Lighting 274
CUNNINGTON, A., on Platform Lighting on a Suburban Station 168
Standard Specification for Street Lighting 143

D

DOW, J. S., on Problems in Lighting Projection .. 168
Some Impressions of the Great Eclipse .. 227

E

ELLIOTT, S. G., on Problems in Illuminating Engineering 169
ENGLISH, Dr. S., on Some Problems in Illuminating Engineering 144

G

GASTER, L., on Editorials
33, 65, 97, 129, 161, 193, 217, 241, 269, 301, 333
Summary of Progress During Vacation .. 337
GIBSON, R. E., on Development of the Gas Supply in Liverpool 152, 181
GOODWIN, A. E., on Relation Between Illumination and Efficiency in Fine Processes 224
GREEN, H. N., on Artificial Light as an Aid to Aerial Navigation 101, 133

PAGE

H

HALBERTSMA, Dr. ING. N. A., on An Exhibition of Lighting 75
Sixth Annual Meeting of the Illuminating Engineering Society of Karlsruhe 250
International Commission on Illumination .. 306
HARRISON, HAYDN T., on Floodlighting 37
Public Lighting by Electricity 110
Standard Specification for Street Lighting 145
HAWKINS, R. C., on Illuminated Hoardings 232
HERBERT, G., on Problems in Illuminating Engineering .. 170
HOLMES, A. E., on Relation between Illumination and Efficiency in Fine Processes 231

I

IVES, R. A., on Problems in Illuminating Engineering .. 169

J

JONES, W. J., on Floodlighting 5, 37
Electric Light in Industry 53
The Street Lighting of London 346
American Lighting Service Methods .. 354

L

LIBERTY, W. J., on Standard Specification for Street Lighting 143
LINGARD, H., on Floodlighting 5, 37
LONG, H. H., on Floodlighting 40
The Lighting of a Greyhound Racing Track 166
LUCKIESH, M., on Half a Century of Artificial Lighting .. 22

M

MARSDEN, J. FORBES, on Illumination as a Production Factor 87
MILLNER, W., on Floodlighting 38
The Lighting of St. Sophia's Cathedral 167

P

PATERSON, C. C., on Some Studies in the Manufacture of Electric Lamps and Thermionic Valves 69
Standard Specification for Street Lighting 141
Relation between Illumination and Efficiency in Fine Processes .. 224

PAGE

R

RAFFÉ, W. G., on Problems in Illuminating Engineering 169
RICHARD, Capt. E., on Artificial Light as an Aid to Aerial Navigation 137
RITCHIE, T. E., on Floodlighting 38
ROSENTHAL, J. E., on Lighting Economics in Relation to Electricity Economics 89

T

TALBOT, H., on A Report on Progress in the Gas Lighting Industry 342
TAYLOR, A. K., on Relation between Illumination and Efficiency in Fine Work 14
TYE, L. M., on Lighting of the Greyhound Theatre and Dance Hall, Croydon 165
TYMMS, Capt., Artificial Lighting as an Aid to Aerial Navigation 138

PAGE

W

WALDRAM, J. M., on Standard Specification for Street Lighting 141
WALSH, J. W. T., on The Measurement of Light .. 172
Illuminating Engineering 109
Floodlighting.. 37
Street Lighting Regarded as an Illumination Problem 345
Artificial Lighting as an Aid to Aerial Navigation 139
Work of the Photometry Department at the National Physical Laboratory 201
WESTON, H. C., on Relation between Illumination and Efficiency in Fine Processes 14, 221
WHARTON, J. R., on Artificial Light as an Aid to Aerial Navigation 137
WYLIE, A., on Modern Gas Lighting and Heating .. 210

SUBJECT INDEX

PAGE

A

Acetylene Lighting in the United States 209
Advertising Exhibition, The, Some Impressions on .. 258
American Lighting Service Methods, by W. J. Jones .. 354
Antique Wood Electric Fittings 27
Artificial Lighting, Half a Century of, by M. Luckiesh .. 22
Artificial Light as an Aid to Aerial Navigation ..65, 101, 133

B

Bermondsey New Central Baths, The 319
Better Mill Lighting.. 316
British Engineering Standards Association (Draft Report of Illumination Section) 16, 112
British Industries Fair, Some Notes on 116

C

Coal Fire, The 178
Clouds, Painting Pictures on 209
Coloured Light, Superimposed on Pictures in Kinema Theatres, Effects of 82
Coloured Lighting, Possibilities of 229
Coloured Lighting of Show Windows, Two Problems in.. 168
Coloured Lighting, Demonstration of Effects of 249
Constitution of the Illuminating Engineering Society, The 71
Correspondence 158, 178, 233, 322, 356

D

Decorative Electric Lighting 18
Desk Lighting, Proper Methods of 280
Diffusing Brightness for Illumination, Surface Brightness of 34, 43

E

Eclipse, The, Some Impressions of.. 227
Eclipse, Further Notes on 218, 252
Editorials, by L. Gaster
1, 33, 65, 97, 129, 161, 193, 217, 241, 269, 301, 333
Editors and Contributors, Relations between 194
Efficiency of Fine Work, Relation of Illumination to 2, 14, 221
Electric Lamps and Thermionic Valves, Some Problems in the Manufacture of 69
Electric Lighting of Shop Fascias, The 17
Electric Light in Industry, by W. J. Jones 53
Electric Light—Competition for Children.. 128
Electrical Advertising 351
E.L.M.A. Illumination Design Course 352
Exhibitions and Gas 118
Eyestrain, Effect of, on the Output of Linkers in the Hosiery Industry 112

PAGE

F

Factory Lighting 251, 270, 321
Floodlighting at the Royal Society of Arts 316
Floodlighting of London's County Hall 256
Floodlighting, by W. J. Jones, H. Lingard, T. Catten ..5, 37

G

Games and Sport, Use of Artificial Light for 242
Gas Exhibit at Alexandra Palace 93
Gas Lighting, by F. J. Gould 26
Gas Supply in Liverpool, Development of .. 152, 181
Gas Lighting Industry, Report on Progress in 342
Greyhound Racing Track, Lighting of a 166
Greyhound Theatre and Dance Hall, Croydon, Lighting of the 165

H

Half a Century of Artificial Lighting 22
Holophane Overseas Agents, Conference of 207
Holophane Developments Abroad 282
House Numbers, Lighting of 114, 159, 203

I

Illuminated Posters 180
Illumination as a Production Factor, by J. Forbes Marsden 87
Illuminating Engineering, by J. W. T. Walsh 109
Illuminated Hoardings and Electrical Advertising, by R. C. Hawkins 232

Illuminating Engineering Society
(Founded in London, 1909)
Constitution of the 71
New Members 37, 101, 140, 203, 245, 337
Accounts of Meetings:
FLOODLIGHTING 5, 37
ARTIFICIAL LIGHT AS AN AID TO AERIAL NAVIGATION 101, 133
VISIT TO RESEARCH LABORATORIES OF THE GENERAL ELECTRIC CO., LTD. 106
THE STANDARD SPECIFICATION FOR STREET LIGHTING 141
LIGHTING OF GREYHOUND THEATRE AND DANCE HALL 165
LIGHTING OF GREYHOUND RACING TRACK 166
LIGHTING OF ST. SOPHIA'S CATHEDRAL 167
TWO PROBLEMS IN COLOUR LIGHTING OF SHOW-WINDOWS 168
PLATFORM LIGHTING ON A SUBURBAN STATION .. 168
PROBLEMS IN LIGHT PROJECTION 168
SOME PROBLEMS IN ILLUMINATING ENGINEERING 140, 165
WORK OF THE PHOTOMETRY DEPARTMENT AT THE NATIONAL PHYSICAL LABORATORY .. 173, 197
LIGHTING OF PRINTING WORKS 203

PAGE

Relation between Illumination and Efficiency in Fine Processes, with Special Reference to the Lighting of Printing Works 221
Report of the Council, 1926–27 245
Progress in Illuminating Engineering 337
Summary of Progress during the Vacation .. 337
Progress in Electric Lighting 339
Report on Progress in the Gas Lighting Industry 342
Exhibits of Recent Lighting Appliances .. 345
Illuminating Engineering Society, Work of .. 33, 46
Illuminating Engineering, Some Problems in .. 140, 165
Illuminating Engineering Society in Karlsruhe, Annual Meeting of 250
Illuminating Engineering Society in Germany, The .. 203
Illuminating Engineering Movement in England, 1908–1927 45
Illuminating Engineering Society, U.S.A... 310
Illuminating Engineering; Past and Future 97
Illumination and Speed 2
Importance of Shadows in Industrial Lighting 350
Industrial Lighting 321
Industrial Lighting, The Importance of Shadows in .. 350
Institution of Public Lighting Engineers, Conference of 273, 287
International Conference of the Press 251
International Developments in Illumination 302
International Commission on Illumination 270, 305, 306, 307

L

Lamplough Electric Bulbs 21
Lawn Tennis by Artificial Light 257
Legal Aspects of Electric Signs 258
Light Reflection and Diffusion, Principles of 113
Light and the Central Station 205
Light Production, Economics of 148
Light Projection, Problems in 168
Light and Advertising 218
Lighting Equipment for Commercial Aviation 204
Lighting Appliances, Exhibition of.. 345
Lighting, An Exhibition of 75
Lighting of the Greyhound Theatre and Dance Hall, Croydon 165
Lighting Economics in Relation to Electricity Economics, by J. E. Rosenthal 89
Lighting Methods of Twenty-five Centuries 184
Lighting Exhibition in Rotterdam, A Novel 66
Lighting of Printing Works, The 193, 203
Luminous Traffic Signals 162

M

Magnitude of the Lighting Business, The.. 81
Mass Production in the Lighting Industry 22
Measurement of Light 72
Measurement of Mean Spherical Candle-power 194
Mercury Vapour Lamps and Chicken Hatching 178
Michael Faraday, A Memorial to 154
Miners' Nystagmus, Causation of 243
Miners' Lamps, Developments in 208
Miners' Lamps, Improvements in 162
Modern Gas Lighting and Heating, by A. Wylie.. .. 210
Motor-car Headlights Problem 302

N

National Gas Conference, A 317
National Illumination Committee (Chairman's Report).. 111
National Physical Laboratory, Work of Photometry Department of 173, 197
National "Safety First" Association 178, 195
New Coolidge Cathode-Ray Tube, Experiments with .. 15
News from Abroad
4, 36, 68, 100, 132, 164, 196, 220, 244, 272, 304, 336
Nominations to Council 147
Notes and News on Illumination
3, 35, 67, 99, 131, 163, 195, 219, 243, 271, 303, 335

O

Office Lighting 253
Open-air Swimming Baths, Lighting of 314
Operating Theatre, An Interesting Lighting Installation in an 355

PAGE

P

Paper, Use of Light for Examination of 267
Photometry, Development of 161
Physiology as a Basis of Illuminating Engineering .. 42
Physiological and Æsthetic Aspects of Illumination .. 241
Picture Galleries, Natural Lighting of 334
Plants and Animals, Observations of Light Emitted by.. 82
Platform Lighting on a Suburban Station 168
Problems in Illuminating Engineering 129, 140
Problems in Light Projection 168
Progress in Illuminating Engineering 337
Progress in Electric Lighting 339
Progress during the Vacation, Summary of 337
Public Lighting in Glasgow, Progress in 314
Public Lighting, Developments in 269
Public Lighting by Electricity, by Haydn T. Harrison .. 110

R

Reflections of Light in Wet Streets 249
Relation between Illumination and Efficiency in Fine Processes, with Special Reference to the Lighting of Printing Works 2, 14, 221
Report of H.M. Chief Inspector of Factories, 1926 251, 321
Report of the Committee on Street Lighting of the Illuminating Engineering Society (U.S.A.), by F. C. Caldwell 347
Research Laboratories of the General Electric Co., Ltd., The 106, 107
Restlight Installations 186
Restaurant Lighting, A Pleasing Installation 185
Retail Store Lighting, Developments in 286
Road Transport Lighting Bill, A Discussion on 177
Reviews of Books and Publications Received
31, 63, 94, 126, 160, 191, 215, 237, 299, 331, 363

S

St. Sophia's Cathedral, Lighting of 167
School Lighting at Smethwick 84
Scientific Apparatus, Seventeenth Annual Exhibition of.. 80
Scientific Problems Underlying Manufacture of Lamps and Valves 66
Scottish Lighting Service Bureau, Recent Activities of .. 319
Sheffield Illumination Society .. 54, 62, 114, 150, 230
Shops and Stores, Lighting of 179
Show-Window Lighting in Germany 204
Smoke Abatement in Schools 234
Smoke Abatement; Increasing Hours of Sunshine .. 56
Smokeless Laundries.. 259
Somerset Caves, Lighting of 208
Speed and Light 13
Speed of Reading in Trains and Buses 13
Stage Lighting, A Demonstration of 180
Stage Lighting, Developments in 186
Standardization of Lamps and Lighting Equipments .. 279
Standardizing Window Demonstrations 21
Statues, Problems in the Lighting of 128
Street Lighting, Standard Specification for .. 98, 141
Street Lighting .. 70, 158, 204, 209, 277, 283, 311, 347
Street Lighting and Traffic Problems 278
Street Lighting Regarded as an Illumination Problem, by J. W. T. Walsh 345
Street Lighting of London, by W. J. Jones 346
Street Lighting and Traffic Problems 355
Street Lighting and Public Safety 130, 334
Street Lighting and the Central Station 130
Street Lighting Installations, Some Excellent 283
Submarine Lighting 242
Sunray Floodlighting Projectors 54

T

Television, Developments in 271
Tennis Court Lighting at Tunbridge Wells.. 20
Testing of Lamps, Precision Photometry in the 108
Twenty Years of Lighting Progress 44
Trade Notes and Announcements
29, 59, 91, 121, 156, 188, 212, 262, 296, 323, 360

V

Ventilation of Small Bedrooms, Experiments on the, by A. H. Barker 357
Visual Perception and Visual Memory 252

W

Warships, The Lighting of 150
Watson House 23
W.O.B. Competition Result 206

DO YOU NEED BACK NUMBERS?

We frequently receive requests for Back Numbers of "THE ILLUMINATING ENGINEER."

In response to numerous enquiries we may recall that the present revised and extended form of the journal dates from JANUARY, 1925, onwards. It is possible that many of our recent Subscribers may not possess copies of these issues. We have still a fair stock available, and we can supply any copy from January, 1925, onwards at the following rates, postage extra :—

		s.	d.
1925.	SINGLE COPIES ... ...each	1	3
	COMPLETE SET OF 12, Unbound, with Index	15	0
1926.	SINGLE COPIES ... ...each	1	0
	COMPLETE SET OF 12, Unbound, with Index	12	6
1927.	SINGLE COPIES ... ...each	0	9
	COMPLETE SET OF 12, Unbound, with Index	10	6
1925, 1926 and 1927, SPECIAL BINDING CASES, each		4	0

The stock of copies of the journal prior to 1925 is now extremely limited ; some individual copies are completely out of print. We have, however, a small number of bound volumes. These are probably now unobtainable elsewhere, and in most cases we have only one or two left. These Bound Volumes can be supplied at the following rates :—

		s.	d.
Bound Volumes.	1908 (Vol. I) to 1913 (Vol. VI) ...per vol.	40	0
,,	1914 (Vol. VII) to 1916 (Vol. IX) ,,	30	0
,,	1917 (Vol. XI) to 1921 (Vol. XIV) ,,	20	0

During the period 1922 to 1924 only a few individual copies, and no bound volumes, are at present available.

To Prevent Disappointment, Order at Once.

Applications should be addressed to—

The Illuminating Engineering Publishing Co. Ltd.,

32, VICTORIA STREET, LONDON, S.W.1.